Scalable Nanomanufacturing of 2D Oxides – Transparent Semiconductors for Switching, Sensing, and Solar Energy

ABSTRACT

The future of ubiquitous electronics demands new technologies that are low-cost, multifunctional, and deeply integrated. For example, emerging applications in autonomous vehicles or advanced prosthetics call for rethinking how we design and manufacture electronics that seamlessly combine sensing, energy harvesting, and communication into 3D systems. S via printing technologies could deliver these multifunctional 3D systems by allowing low-cost integration of devices utilizing high-

BIOGRAPHY

Prof. William Scheideler graduated from Duke University in 2013 with B.S.E. degrees in Electrical Engineering and in Biomedical Engineering. He completed his Ph.D. as an NSF Graduate Research Fellow in Electrical Engineering at the University of California, Berkeley, where his doctoral thesis explored scalable nanomanufacturing of metal oxide electronics. He then completed his postdoctoral studies in the Department of Materials Science and Engineering at Stanford University, where he studied scalable fabrication and thermomechanical reliability of perovskite solar cells. William joined the faculty of Dartmouth College's Thayer School of Engineering as an Assistant Professor in 2019, launching the SENSE (Scalable Energy and Nanomaterial Electronics) Laboratory. His current research interests include 3-D nanomanufacturing and 2D materials for energy and sensing.

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